

The Government Helps the Architect

The protecting arm of the United States Government is at last encircled around the architect or, at least, about the altering but graceful form of the pioneer house of Illinois. The Government proposes to employ one thousand unemployed draftsmen in the United States on measuring and photographing ancient and historic buildings. A new bureau has been created under the CWA called the Historic American Building Survey. The credit for this inspiration lies not with an architect (at least, not a practicing one), but with an official of the National Parks Division of the Interior Department, Mr. C. E. Peterson.

When I was in Williamsburg in November, the consulting architects of the restoration (and, by the way, it's now worth seeing) received an outline from Peterson for this project with a request for an opinion. The program was so carefully prepared, so ably worded that the dozen architects in attendance ditched for the moment their eighteenth century aroma of peace, plenty and beauty and plunged into the acrid odors of present-day distress. We telegraphed our unanimous approval and William S. Perry of Perry, Shaw and Hepburn sped to Washington to help the sponsor steer his project through the shoals of departmental criticism. Presently the harbor was safely reached. The secretary of the Interior Department not only approved the project, but agreed that it should be accomplished under the guidance of the American Institute of Architects.

Earl H. Reed, as president of the Chicago Chapter, A. I. A. received a telegram on December 8 from Thomas C. Vint, National Parks Division, which in substance stated:

Program known as Historic American Building Survey employing immediately 1000 architects at 90c to \$1.10 per hour, thirty hours a week for ten weeks, to prepare measured drawings of selected historic structures through the United States as Civil Works project under administration of office of National Parks, Department of Interior. Administration to be decentralized by districts. National A. I. A. office authorizes your Chapter to name architect to serve as District Officer to administrator, District of Northern Illinois. District Officer salary \$200 per month plus limited travel expenses, stenographer assistant and necessary office supplies. District Officer to arrange for contributed office space for district headquarters. Wire Government name of District Officer recommended by your Chapter for appointment by Secretary of Interior and address of district headquarters. Instructions will follow to District Officer as soon as appointed.

Earl H. Reed, architect, of Chicago, whose knowledge of pioneer Greek Revival architecture in Illinois is unequalled by any other, has been recommended District Officer. Draftsmen and photographers will soon be on the road in that most delightful and useful of occupations, the measuring and recording of ancient and beautiful buildings. Already a considerable list has been prepared by the Illinois State Board of Art Advisors and previous to this splendid action by the Government, Robert Kingery, head of the Department of Public Works, had assured the Board that

the state would mark with suitable tablets old buildings in Illinois judged worthy by reason of their historic or architectural interest.

Readers of this notice can aid the Government by sending to Earl H. Reed, Tribune Tower, Chicago, the names and locations of old buildings worthy of record and the names of unemployed architects or draftsmen willing and able to record them.

A list of old structures in Illinois of architectural interest built between 1785 and 1855 compiled by the Board of Art Advisors of the State of Illinois (T. E. Tallmadge, Earl H. Reed, Professor O'Donnell of the University of Illinois) follows:

Jubilee Victoria Chapel, Jubilee College, Jubilee; Court House, Metamora; Payson House, Peoria; Hossack House, Ottawa; Jarrot House, also 18th century church, Cahokia; Odd Fellow's Hall, Belleville; Pierre Menard House, Old Kaskaskia; Presbyterian Church, Winchester; Col. Davenport's House, Rock Island; Windmills, West of Chicago; Wells House, Geneva; Law Office, Naperville; Rogers House, Marengo; General Chetlain House, Galena; General Smith House, Galena; Senator Washburne House, Galena; Captain Harris House, Galena; Episcopal Church, Galena; Old Market House, Galena; Burr House, Monmouth; General Wood House, Quincy; Old State House, Springfield; Captain Emerson House, Beardstown; First National Bank Building, Shawneetown; Old Supreme Court Building, Mount Vernon; Supreme Court Building, Ottawa; Court House, Thebes; Steeple Building, Bishop Hill (Henry County); Halliday Hotel, Cairo; McNeely Mansion, Lewistown; Morrison House, Peoria; McKinney House, Peoria; Governor Duncan Farm House, Jacksonville; Collins Homestead, Collinsville; Wallace House, Ottawa; Beardstown Court House, Beardstown; Old Court House, Galena; Beecher Hall, Illinois College, Jacksonville; Loomis Hall (Shurtleff College), Alton; Nachusa Tavern, near Dixon; Branton's Tavern, near Galena.—*Thomas E. Tallmadge*, Chairman of the Board of Art Advisors of the State of Illinois and Member of the A. I. A. Committee on Preservation of Historic Monuments.

Registration of Architects with the CWA

When the CWA was established in Chicago, an effort was made to arrange for the registration of architects who desired to secure employment under this department in the Illinois Society of Architects' headquarters. After several attempts we were told that the Western Society of Engineers had been selected to act as agent to register architects, engineers and others of the building industry.

A call at the office of the Western Society of Engineers disclosed the fact that many engineers had registered, but very few architects. However, any architect desiring to register under this department may do so at any playground park and it will be just as effective, as all registration cards are sent to the general headquarters.—*Herman L. Palmer*, Financial Secretary, I.S.A.

The Advance in Brewery Construction and Equipment Since Enactment of the Volstead Act

The brewing industry was about the sixth largest industry in the United States before Prohibition, comprising about sixteen hundred breweries, with an annual output of sixty-five million barrels of beer. I shall not dwell upon the good or bad results of the Prohibition period, as this has been sufficiently described in our daily papers and is now shown by vote of the people in the different states, which have favored legal beer as the National Drink.

The designing of breweries is a specialty requiring many years of experience to master, since the architect must design not only the buildings but also the equipment, which may need to be different according to the process the brewer may employ.

A brewery usually consists of a brewhouse, stockhouse, power plant and bottlery. In former years it was considered practical to employ the so-called gravity system, which necessitated a brewhouse of from eight to ten stories, where the beer was made, and a stockhouse of four to five stories, where the beer was fermented and stored.

During the thirteen years of Prohibition, many improvements were made in the design as well as in the processing and equipment of modern breweries, which not alone shorten the ageing process but also improve the quality of the product. The brewhouse of today is designed along European lines with the main equipment and apparatus control all on one floor, therefore requiring only three or four stories in height.

The architect must be fully acquainted with the different processes of brewing and with the latest and most modern brewing equipment used in Europe and in this country in order to design the most modern, practical and efficient brewery to manufacture a quality beer at the least expense.

The stockhouse, which contains the different cold storage rooms (usually called cellars), is generally two to three stories high with a tower housing the beer cooler and surface cooler. The beer, finished in the brewhouse, is pumped over to the cooler and then runs by gravity into the settling tanks and fermenters. After the fermentation has been completed, which requires from eight to twelve days, the beer is run by gravity to the next floor below into the storage and finishing tanks.

In former years only wood cooperage and glass enameled tanks were used for the storage of beer, but in the last few years aluminum, pure nickel and Monel metal, stainless steel and also plain steel tanks find employment for fermentation and storage. The latter, however, must be carefully coated before they are filled so that the beer will not come in contact with the pure steel. In addition to steel storage, a large firm is building concrete tanks in this country under a licensed system which has proven successful in Germany and other European countries. These concrete tanks, coated on the inside with a special preparation of pitch, are usually built rectangular and placed on top of one another, thereby utilizing the space to the fullest capacity.

In connection with the stockhouse is the racking room where the beer is run into either wood or steel kegs and then delivered to the consumer, or piped from the finishing room to the so-called Government cellar in the bottling plant and then run from there to the bottle filler. Adjoining the racking room is the wash room where the empty kegs

are delivered, repaired, pitched and washed before they enter the racking room to be again filled with beer. The bottlery is usually a separate building with a basement, one or two stories high.

The Government cellar is located in the basement, equipped with glass-lined steel tanks. Each tank is accurately gauged so that Uncle Sam may collect his taxes, and after these are paid the beer is released to the filling machine in the bottlery.

The operation follows this sequence: delivery of empty bottles to the basement where they are fed into the soaking and washing machine which extends up to the first floor for inspection as to cleanliness and automatic delivery to the filling and crowning machines. Then they are delivered by conveyors to the pasteurizer where they are heated to temperature of 142 degrees Fahrenheit in order to destroy any bacteria which may be contained in the beer. From the pasteurizer the bottles are delivered to the labeling machine and packed into cases or cartons, as may be desired, ready for delivery to the customer.

In former years the layman could always point out a brewery since they were all designed along the same lines, but today the modern brewery is designed along modernistic lines and equipped according to European practices. The buildings are usually of concrete in skeleton form, with steel upper structure, brick walls, concrete floors with asphalt finish, and all cold storage rooms insulated with one or two layers of cork in all walls, floors and roofs, plastered on the inside and painted with aluminum paint.

These rooms are usually cooled by means of ammonia or C.O.² (using a system of piping through which the ammonia is circulated), or unit coolers or cold air, which is applied and circulated through the rooms. The air used in cooling the beer is filtered and purified before entering the cooling room. The brewery of today is a model of cleanliness, every department being sanitary.

The power plant consists of the boiler house and engine house. The boilers are usually return tubular or watertube boilers to generate the necessary steam for cooking, heating water, pasteurizing beer, etc. When coal is used, it is dumped from the cars, elevated into coal bunkers and spouted from there into the stokers and then to the boilers. Here are also located the pumps, feedwater heater and water softener, if required.

In the engine room are located the refrigerating machines, air compressor, generator, etc. All these machines are electrically driven, as are all other machines, apparatus and equipment throughout the plant. All is motor driven, with automatic controls in the most efficient and economical manner.—*Richard Griesser.*

Coming Joint Meeting

For the joint Illinois Society of Architects and Chicago Chapter, A. I. A., meeting on January 16, the program committee announces this subject: "The Use of Photography in the Promotion and Sale of Architectural Services." This address will be prepared and presented with moving pictures by the Eastman Kodak Company. The speaker the company selects will be announced later.

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Editor Monthly Bulletin

ARTHUR WOLTERS DORF, 520 N. MICHIGAN AVE., CHICAGO

Committee on Public Information

E. S. HALL, CHAIRMAN TIRRELL J. FERRENZ ARTHUR WOLTERS DORF

We are entering the year 1934 after four years of depression—a depression that has felled the building industry. The architect, in whose hands building projects take tangible form, may well be considered the Forgotten Man of the professions; not that he has been mentally idle, but rather because his projects have failed to take form in materials of building. Hope, he retains, and enthusiasm!

During the years of discouragement has he not been ever ready to give his best for the solution of the industry's difficulties? In the present Federal administration and in its predecessor, the profession has done and continues to do its full share in the Government's efforts to restore employment. Everywhere at conferences and conventions, in the press, the architect is in evidence with effort and advice.

The Government's plans for better housing designed to clear slums in cities, and on these sites to erect modern sanitary housing for the temporarily displaced tenants at rentals only slightly, if at all, higher than exacted in the wrecked quarters, should produce in 1934 useful and interesting results that will be keenly studied by the profession. It is a new field for American government. The architectural profession carries a heavy responsibility in its consumption.

Once there was an APA
Remembered only with profanity,
But now we have the NRA
Prescribed to circumvent insanity.

With PWA and AAA
A compound for prosperity,
Come CWA and TVA
A gift to our posterity.

Take letters all and capitals
And play ad lib at juggling,
Put faith in smiling FDR
To solve the problems troubling.

On the Mayor of Euclid, Ohio

The Editor: One impression carried away by those who attended the Conference of the National Association for Better Housing was that Mayor Charles R. Ely of Euclid near Cleveland, Ohio, typified the kind of public officeholder this country sorely needs—a type that could go far in solving housing as well as other depression problems.

Notwithstanding the disposition of a resident of a nearby city to embarrass this official with questions, his statement of facts seemed to register 100%. Obviously in the efforts of the citizens and officials of Euclid to solve their problems of low cost housing, the moves made in that direction were direct and apparently based on good common sense and square dealing. The elements that make building operations costly were lacking. So-called frills and non-essential features were omitted. There were no commissions or "emoluments" to add to the cost. In other words, the cost of each house was as near net as hard-headed, practical men could manage.

The application made for Government loan for the housing project was supported by a volume of statements, statistics, maps, plans and photographs that left little room for misunderstanding when the subject reached the attention of officials in Washington.

The problem of low cost housing, whether in detached houses or in multiple units, would be progressing toward solution if such intelligent, honest and direct methods were used by public officials. The use of money by the common run of public officials in our cities makes a sorry contrast to the example set by the officials of Euclid.

—Elmer C. Jensen.

"Of course it is always difficult to get the pulse in so fluid a period, but if I have any guess as to the trend that foremost architectural thought in this day is taking, I would say that it is tending toward a new horizon that will have to do more and more with the social and human factors and less and less with questions of abstract design; more and more with the problems of catching and expressing the tenor of modern life and thought, and less and less with archaeological argument and stylistic considerations."

—Rexford Newcomb, November *Architecture*.

Today Baalbec is a little village huddled at the foot of the broad terrace where stands this acropolis. What happened that so mighty a city should have disappeared? Was it because that city was merely the product of a boom and that when the boom passed the very reason for the city passed with it? Was it because—we could not resist the terrifying question—the Romans who built this Heliopolis were just suckers—even as you and I?

—Lewis Browne.

Burnham Brothers, Inc., announced on October 28 that Hubert Burnham and C. Herrick Hammond have joined in the practice of architecture and that henceforth the firm name will be Burnham Brothers & Hammond, Inc. The firm Perkins, Chatten & Hammond disappears. Melville Clarke Chatten becomes associated with the new firm of Burnham Brothers & Hammond, Inc.

Deductibility of Certain Losses for Income Tax Purposes

Recent changes in the Federal Government's internal revenue laws have resulted in further limitations on the deductibility of losses for income tax purposes. These restrictions should be carefully considered by all individual income tax payers. Professional men whose income is from service rather than from capital are particularly interested since the earnings from productive years must be conserved for periods of slender return.

One of the most important changes which has been made is the elimination of the carryover of the previous year's losses. The present law also provides that losses from the sale of securities, held for less than two years, are deductible only to the extent of profits from like transactions.

Certain types of losses are still deductible, however, and the taxpayer with income from other sources will be primarily interested in the restrictions placed against them.

One of the more important of these deductible losses is that resulting from securities becoming worthless while in the taxpayer's possession. For example, an architect may have acquired junior securities, i. e., second mortgage bonds or stock in one of the buildings he designed and whose erection was subsequently supervised by him. On account of reverses the first mortgage is foreclosed in 1933 and the junior securities become valueless. The cost of these securities is fully deductible from income from other sources without regard to the length of time held or the limitation on capital losses. The worthlessness must have occurred, of course, within the taxable year.

It is also important to note that if the taxpayer can conclusively establish that his securities have become partially worthless, i. e., permanently so, he may deduct an amount equal to the extent of the loss. In the example above, assume a \$1,000 first mortgage bond. After foreclosure the bondholders receive new bonds only to the extent of 50%. The remaining \$500 will then be deductible as outlined above.

Another type of loss whose deduction is still permissible is the so-called "Capital Loss." This results only when the securities or property sold have been held for two years or more. The deductibility of Capital losses is subject, however, to two limitations, i. e., substantially identical securities must not be acquired within a period of 30 days before or after the sale from which the loss arises (technically called the wash sale provision) and the resulting tax after deducting 12½% of the capital loss must not be less than if the loss had been treated as an ordinary deduction.

The Federal Courts have decided in a number of cases that bona fide sales by a husband to his wife of securities held by him, even for the purpose of establishing an income tax loss are legal and proper. This even though the sale apparently violates the so-called wash sale provision set forth above. (It is important to note that husband and wife must file separate returns to obtain the benefit from such a sale.)

Examples are the Charles E. Mitchell case of general knowledge where a jury in the Federal Court acquitted Mr. Mitchell, formerly President of the National City Bank of New York, notwithstanding the fact that he did not actually transfer the stock into the name of his wife, but concluded the transaction by letters; the stock still remaining as collateral for his loan from J. P. Morgan & Company.

A more striking case was that of the Commissioner of Internal Revenue vs. Richard W. Hale, decided in the

United States Circuit Court of Appeals for the First Circuit November 10, 1933, where a husband sold securities to his wife and wrote her a letter stating that this sale was for the purpose of establishing an income tax loss and that the price he was asking for these securities was, so far as he knew, the then market value. The court held that this did establish a loss in this case. The wife used her own funds to make the purchase, but in the case of *Whiteford v. R. Cole vs. E. S. Helburn*, Collector of Internal Revenue for the District of Kentucky, decided March 24, 1933, a father actually lent his son the necessary funds for the transaction which was consummated by the son purchasing through a broker, a like amount of the securities which his father had sold the previous day.

The coming session of Congress may in new revenue laws alter some or all of the foregoing. In this connection it may be noted that present tax rates are in some instances lower than those imposed by many other countries. This is particularly true of rates applicable to the smaller incomes.

—M. D. Frantz, C.P.A.

Mr. Frantz will conclude this discussion in the February-March Bulletin.

Joint December Meeting

The meeting of the Illinois Society of Architects and the Chicago Chapter, A. I. A., on December 12 had its program devoted to the subject "Lighting for Human Seeing-Machines," a point of view evolved after twenty-four years of scientific research, twelve years of which had been useless according to the speaker, Matthew Luckiesh, D.Sc., Director, Lighting Research Laboratory at the Nela Park, Cleveland, plant of the General Electric Company.

Dr. Luckiesh's address was long—very long—and not adapted particularly to a company of architects. The architect aims, as a matter of course, to progress with scientific advance in every field, particularly where that field touches the work of the architect vitally, as does lighting. But he cannot be expected to carry a useful and working knowledge of the lighting science in a manner that is expected of an illuminating engineer or light salesman. Dr. Luckiesh either did not recognize or does not understand the difference. Neither has he acquired the art of elimination, an art whose necessity is recognized by all good writers and speakers, the truth of which is demonstrated by the penetrability into the hearers' minds of certain university professors, who have an appeal far beyond that of their confreres. These words should be taken to heart by the program committee of these joint meetings. This committee was conspicuous by its absence from the meeting.

Dr. Luckiesh conceded that general lighting was today pretty well solved, but light quantity as well as quality as used by the human animal and its effect on this animal had been his special study. He divided the individual's relation to light into three parts: one, visual task; two, the eyes; three, light and lighting. He spoke much of candle feet, of man's original habitation being out of doors, of one to one hundred candle feet of light supply within doors as compared to hundreds and thousands of candle feet outdoors, either under cloudy or sunny skies. He showed the pupil of the eye in an old man by picture on the screen where this man was working at a bench, being one-third the size of the pupil in the eye of a youth of twenty. He then explained the three elements, light production, light control, light specification. During the rest of the talk Dr. Luckiesh worked with diagrams and graphs on the screen which probably are reproduced in his books and studied by illuminating engineers. Dr. Luckiesh is a physicist of note and author of authoritative works bearing upon psycho-physiological research.

This "Five Billion Dollar Business," Air Conditioning

If a quarter of a century as a sincere student of a subject entitles one to express an opinion, then we will pause right here to indulge in ribald, raucous and reverberating risibilities.

"Five Billion Dollars!" That's lots of money! But that does not discourage the optimistic editors of some of our most eminent journals. Why, even the financial publication wizards have indulged in wild flights of fancy in their staid columns!

No one knows who is going to pull this rabbit out of the hat, least of all those who are most familiar with the requirements of the Year 'round job. But I can say this: All this ballyhoo released upon our unemployed executives of idle factories succeeded in diverting their minds from the futile idea of trying to do business while the banks, goaded by a sound money maniac, were calling all their outstanding loans and tearing down the whole business structure.

As a consulting engineer in the field, I was finally obliged to refuse to interview any more mousetrap or molasses manufacturers who were seeking free advice about how to get some of this easy five billion market.

All it meant to them was "cooling." They couldn't see the vastly more important and inescapable business of automatically warming, moistening, cleaning and de-odorizing and moving the air during the eight calendar months when heating is necessary to more than a hundred million of our people. When that is properly down, we have our home cooling job practically completed for a modern insulated house. Such additional cooling as may be required is added in the form of an extended fin heat transfer surface placed in the duct. A small compressor may feed refrigerant liquid to this, or very cold water may be pumped through it. In either case, the surface will need to be dripped to the sewer since really effective cooling will drop the moist summer air below its dewpoint.

A 24,000 cubic foot house that is not air conditioned, will lack about 56,000 grains of moisture on a below freezing day—just about a gallon of water. On a humid summer day that same house air will probably have a gallon too much water. Now just to take that excess moisture out of the air in an hour will use the best one-horsepower motor and compressor that ever was—or ever will be built. Starting right there, almost any fellow who never did any comfort-cooling in homes will go on and show you that the house will need five tons, and there's no disputing the figures—IF—you accept two unnecessary and preposterous assumptions.

First: That a certain wet and dry bulb temperature should be maintained in summer.

Second: That the cool air can be delivered by any old-fashioned piping method.

So many independent investigators disproved the first assumption so long ago that everyone knows it now. The second is quickly disproved by the lamentable tendency of very cold air to drop promptly to the floor from the cold radiator surface or the low wall grille, which, at low velocity, may function fairly well to deliver warm air in winter.

Just as it is better to mix warm air above the breathing level, so it is better to use that location for the cold air to enter, and it should enter at a fairly high velocity so it will get well mixed before it drops into the living zone. If it is well directed from a high point toward the outer wall while at the same time you remove air near the floor line from the center of the house, you may be able to do a very good job

of comfort-cooling the whole house without regard to exact temperature or humidity maintenance, for it must be remembered that human comfort-cooling is very dependent upon rate of air motion.

Suppose we do a good job of design of equipment and piping system, so good that we are getting satisfactory results from a 1½ H. P. job where the theoretical 10° drop and 55% relative humidity maintenance calls for 5 H. P.? How many poor workmen or underpaid clerks can afford it? Well, how many who now afford automobiles can afford them? The same line of thought may presently sell air conditioning and comfort-cooling that is selling automobiles today, i. e., if one wants it keenly enough, a way will be found to get it. So you see, I am not pessimistic.

Rather, I deplore the fact that the existing houses are so very unsuited to the creation of comfort temperatures and humidities and air motion rates. Poorly insulated, or not at all, without storm sash, double glazing or even heavy glass, these old houses are literally heat sieves. The best thing one may do with them is to build another house of insulation and glass about them; then restore the basement by means of a modern central air conditioner, *properly* piped to all rooms.

—Everett S. Buck, Consulting Mechanical Engineer.

Greater Architects Biographies

The thirteenth in the series "Great American Architects and Their Part in Our National Pageant" devoted to John Wellborn Root (1850-1891) appearing in the publication "Building for the Future," an eight-page leaflet published occasionally by the Peoples Gas Light & Coke Company, Chicago, has been issued. All these biographies in the Gas Company's publication are written by Thomas E. Tallmadge and each covers about 1000 words accompanied by a portrait of the subject together with photographs of executed work and occasionally reproductions of drawings. Mr. Tallmadge in this number devotes his words largely to Root's part in the World's Fair of 1893. Historically these biographies are of great interest. To date the series includes Charles Bulfinch, Samuel McIntire, Thomas Jefferson, Benjamin Latrobe, Richard Upjohn, Richard M. Hunt, H. H. Richardson, Charles F. McKim, Stanford White, W. L. B. Jenny, Daniel H. Burnham, Louis H. Sullivan and John W. Root.

Some years ago a similar collection of biographies of American architects of note, with portraits reproduced in color from paintings made by C. J. Monro, was published and distributed among architects by Pratt & Lambert, Inc., varnish manufacturers. That list included Dr. William Thornton, Benjamin Latrobe, Charles Bulfinch, Richard Upjohn, Napoleon Le Brun, Richard M. Hunt, George B. Post, Russell Sturgis, H. H. Richardson, Robert Peabody, Daniel H. Burnham, Charles F. McKim. The biographical sketch in the Pratt & Lambert series extended over about 500 words.

The profession is indebted to a gas company and a varnish maker for sending to its members gratuitously, accompanied by pages advertising their products, the life stories of its outstanding men. Has not the profession achieved sufficiently great results to warrant the publication of a book, without advertising, devoted to a series of lives of America's greater architects? We think the time has arrived and earnestly recommend to either Thomas E. Tallmadge or Fiske Kimball or Rexford Newcomb undertaking the careful writing of such a book, adequately illustrated. The profession would welcome such a volume.

The Genesis of the Gothic System

The Bulletin is asked: Who has developed the theory, and how, that the Gothic system derives not from the earlier Roman and Romanesque barrel vaulted basilica, later developed into cross vaulting and supported by ponderous piers,—but from wood churches in Norway?

The student who has devoted his time and effort through years of travel and investigation of this subject is Josef Strzygowski, Professor of Art History in the University of Vienna, and author of no less than six books, some in German, others in English, dealing with this and allied subjects.

In his book "Early Church Art in Northern Europe," published by B. T. Batsford, Ltd., London, he argues this question extensively in Chapter 4, The Mast-Churches of Norway. He complains that scholars have confidently asserted that the Norwegian mast-churches are imitating the plan of the stone church; that the church built with masts on sleepers enclosed by stave-screens and having a ship-like roof, is apparently unique; that Dietrichson must be in error when he suggests, following other orthodox art historians, that this is simply a translation into wood of the Romanesque stone basilica, as at Urnes, with characteristic details, conspicuously the cube-capitals. Further along he maintains that neither Romanesque nor Gothic art could drive out the enduring tradition of the mast-church. It persisted in Norway during great monumental stone church building and ceased only in the 16th century from an unexplained cause.

In the succeeding chapter, Royal Tombs in Scandinavia, the author says: "In Roman times there is found a single vault with long turned barrels or with barrels intersecting over a square, and with the cupola over the round plan or the octagon. Romanesque and, still more, Gothic art employed rows of parallel bays along the main axis separated at first by transverse arches, and later by crossing ribs. Now this architectural scheme has its origin in early North European wood architecture; the germ of it is found in western framework and northern shipbuilding with spans. This is a shape, as I have already pointed out in dealing with the technique, which is most apparently derived also from shipbuilding. It is not only the roof of the mast-church, but also the triforium and other details that are related to this art, so long neglected by historians of art.

"While it is true that partly by natural gift and probably far more by specialization and habit one type of process is more developed than another in a given person, there is no evidence of absolute divisions. By virtue of the organic structural and functional unity every normal person is, though in varying degrees, capable of thinking both with the creative poet-artist and the competent critic in terms of integral variables, and with the philosopher and the man of science in terms of constants. Marked disability for one or the other mode of thought is as a rule evidence of mental unbalance and in any case, of a degree of intelligence inadequate for both letters and arts, and science."

—*Academic Illusions* (U. of C. Press) by Martin Schütze.

"The skyscraper has been a piquant and picturesque episode in the evolution of our American architecture but the signs are unmistakable that its irresponsible vogue is near an end."—*Charles D. Maginnis*.

Money for Modest Building Projects

Twelve architects met at the Hamilton Club on December 15 to discuss, under the chairmanship of John H. Millan, ways and means to create employment in the building industry including architects with projects now dormant for want of necessary money to prosecute building operations. Since hope springs eternal in the human breast, these men look to the CWA to help in having such projects materialized.

The first speaker, Earl H. Reed, who had just been nominated District Officer of the Historic American Building Survey, read a telegram from the National Parks Division of the Interior Department, stating that the Parks Division was ready to employ one thousand architects and architectural draftsmen through the country to survey and plat historic buildings. The discussion, however, passed on to the many small alterations and rehabilitation projects lying inactive because banks and other financial institutions refuse loans today for any building purposes.

The plan of Mayor Charles Ely of Euclid, Ohio, which has been successful with the Government in having granted a loan of one million dollars for the building of small houses in that city where the ultimate house owner owns the lot free of encumbrance, was discussed in detail. It was made clear that Mayor Ely's presentation to the Government of the plan, complete in a bound volume, with all possible calculations, verifications and graphical illustrations, accompanied by a board of representative responsible citizens formed into an association, was thought a model for all similar projects.

For alteration projects in Chicago, or elsewhere, the majority saw that the Government could not loan direct on individual projects without an intermediary, such as a trust company, and an association of responsible citizens of standing, able to pass the careful scrutiny of the Government's secret investigators.

A joint committee of the Illinois Society of Architects and Chicago Chapter, A. I. A. was appointed, consisting of Henry K. Holsman and B. Leo Steif for the Society, and Philip Maher and Robert De Golyer for the Chapter, to study and pursue the subject further. They were advised to draw into conference Professor Charles Merriam, economist and political scientist of the University of Chicago, whose opinion and advice it was thought the Government valued highly.

The company adjourned to meet again in a week.

Question. I am a law student. For the last month my eyes have given me a great deal of trouble. I find it impossible to keep them focused on the printed page. I live opposite the dressing rooms of the Bijou Theater.

J. W. L.

Answer. You are suffering from what is called "unruly pupils." What you need is a change of environment. You might try Brooklyn.

—*Dr. Traprock*.

Question. For over six months I have been fighting an obstinate case of shingles which has resisted all treatment. What would you advise.

Mrs. H. L. F.

Answer. Do not be discouraged. Your malady, if it cannot be cured, can often be made attractive. A moss-green creosote stain is sometimes used but this is unnecessary. Why not leave the shingles alone and let them weather?

—*Dr. Traprock*.

Training Architects

Out of the Chicago Conference on Preparation for Entrance to Architectural Practice which was held at the Architects Club on October 21, 22 and 23, there has developed a better understanding on the part of the several agencies having to do with architectural education and entrance to practice. It was unanimously agreed that minimum preparation for professional practice should consist, after completion of the grades, of not less than a four year standard high school course, a four year standard course in college of architecture, and three years practical internship training in an architect's office under the direction of a competent, experienced mentor. It was the consensus of opinion that two years college work in liberal arts and/or foreign travel and study would be an important supplement to the minimum training just described.

It was agreed that a person cannot make as rapid progress in theoretical training when engaged in gainful employment as he may when devoting his entire time to special study. It was declared that it is reasonable to suppose that persons who gain their education while profitably employed, require a period at least one and one-half times greater than if they acquire their training by full-time attendance at a regular, approved educational institution.

For comparative visualization of a required period of preparation which should be involved in the different methods of procedure, a tabulation was set up as follows:

STANDARD: Four years high school. Four years college. Three years internship. Total: eleven years.

EQUIVALENT A: Four years high school. Six years training while employed. Three years internship. Total: thirteen years.

EQUIVALENT B: Six years elemental training while employed. Six years theoretical training while employed. Three years internship. Total: fifteen years.

Santayana on American Architecture

"America is not simply a young country with an old mentality: it is a country with two mentalities, one a survival of the beliefs and standards of the fathers, the other an expression of the instincts, practice, and discoveries of the younger generations. In all the higher things of the mind—in religion, in literature, in the moral emotions—it is the hereditary spirit that still prevails, so much so that Mr. Bernard Shaw finds that America is a hundred years behind the times. The truth is that one-half of the American mind, that is not occupied intensely in practical affairs, has remained, I will not say high-and-dry, but slightly becalmed; it has floated gently in the back-water, while, alongside, in invention and industry and social organization, the other half of the mind was leaping down a sort of Niagara Rapids. This division may be found symbolized in American architecture: a neat reproduction of the colonial mansion—with some modern comforts introduced surreptitiously—stands beside the skyscraper. The American Will inhabits the skyscraper; the American Intellect inhabits the colonial mansion. The one is the sphere of the American man; the other, at least predominantly, of the American woman. The one is all aggressive enterprise; the other is all genteel tradition."

—From *Winds of Doctrine* by George Santayana.

I. S. A. and Chapter November Meeting

The unending subject of discussion today wherever architects meet is housing—housing of many families with lean and shrunken pocketbooks, where promoters have little or no money for building and Uncle Sam, through the NRA and PWA, is looked to as savior. Consistently the Illinois Society of Architects and the Chicago Chapter, A.I.A., chose for their joint meeting held in the Architects Club of Chicago on November 21 "Housing and Its Ramifications." Five authoritative speakers were on the program who held the undivided attention of one hundred and fifty listeners from beginning to end.

Before this program began to function, the Chicago Chapter, under the chairmanship of President Earl H. Reed, Jr., and the Illinois Society under the chairmanship of President John R. Fugard, conducted short business meetings.

George Nimmons was the pre-ordained chairman for the fixed program. He first introduced Coleman Woodbury, Executive Secretary of the Illinois State Housing Board, who chose as his subject "Legislative Measures." He began with the passing of the R. F. C. Act during the Hoover administration, telling of twelve states which passed housing laws after the R. F. C. enactment in order to comply with the requirements laid down to receive Federal financial aid. With the coming of the NRA and that service taking over the housing end of the earlier R. F. C., applications for loans of this sort had reached the number of 225, of which 17 have been granted aid at least tentatively by the NRA. The speaker reminded his hearers that the first consideration in passing Federal emergency legislation was the relief of unemployment. In the projects submitted, the Federal authorities had found rentals proposed not low enough, the sites selected often unsatisfactory, the 15% equity financing frequently unsatisfactory, principally because the cash was not forthcoming. These are 25 to 35 year Government loans. This experience had resulted in the creation of the Federal Housing Corporation, a Delaware Corporation with Secretaries Ickes and Perkins and Housing Director Robert Kohn, Federal incorporators. With the 30% grant permitted by law for projects of public bodies to which this Delaware corporation belongs, it should be possible to create housing at a room rental rate considerably below what most projects submitted ask. Federal authorities seek local interest and sentiment to the end that eventually local bodies or governments will take over management.

Mr. Woodbury made clear that limited dividend housing corporations, destined to operate under the Illinois Housing Law, lean on the Federal Government for building loans. To ease the taxpayer's mind, he stated that the Illinois State Housing Board controlling limited dividend housing corporations depended for its financial support entirely on fees from housing projects and not on general tax levies.

Eugene Taylor, Manager of the Chicago Plan Commission, prepared and read a paper "Correlating of Statistics into Maps." Referring to the newly passed Illinois Housing Law, he said that even though limited dividend housing corporations had the approval of the Illinois State Housing Board, still it would be necessary for such projects in the City of Chicago to submit their plans to the Chicago Plan Commission for review after passage by the Housing Board.

With the assistance of statistics gathered by the Social Science Department of the University of Chicago, the Chicago Plan Commission has now developed fifteen or sixteen

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large maps covering the area bounded by Belmont Ave., 63rd St., Kedzie Ave. and the lake. These colored maps are extremely valuable in that they tell the density of population, the character of inhabitants, the character of houses, the proportion of unemployment at certain periods, the decrease in population through certain years, and other valuable information. In the decade 1910 to 1920, seven tracts in this area lost 15% of their population and, barring certain restricted areas, the decrease generally has followed consistently. In speaking of zoning, which was instituted in the City of Chicago more than a decade ago, Mr. Taylor made clear that zones for commercial use have been shown to be three times greater than the need at any time. Technical men desiring to study and make use of these new plans are invited to consult them in the rooms of the Chicago Plan Commission.

Edward P. Wells, the next speaker, devoted himself to the subject "Subsistence Homesteads Program" and stated that the Department of the Interior of the Federal Government had a fund of \$25,000,000 to spend for the introduction of its subsistence homesteads program; that this fund, under proper control, was available for subsistence homesteads at 3% interest. The speaker referred to community gardens and experiments in Cairo, Illinois, in Muncie, Indiana, and in other places. He dwelt in detail upon the size of such gardens and compared them with Schrebergardens in Germany. These German gardens, the speaker found, are entirely too small (he had not visited Germany) to accomplish what he thought the subsistence farmer should accomplish. He spoke of thirty varieties of vegetables that such a farmer could raise.

When Mr. Wells had finished, Chairman Nimmons, who was in unusually fine fettle, that is, he conducted with remarkable grace and charm, adding anecdote suggested by a previous speaker leading into the introduction of the next man on the program, reminded his hearers of his unflagging interest in gardens since his boyhood days. He had at one time a vertical garden—a skyscraper garden where he raised strawberry plants successfully.

Donald H. McNeal, Manager of the National Homes Finance Corporation, and by training a structural engineer, told of the aims and achievements of his corporation in helping people of very limited means to build and own their own homes. His corporation is composed of 130 retail lumber dealers and millmen, with 55 other dealers in building materials associated, the corporation operating in 28 states. The modus operandi was explained in detail, making clear that houses are erected on 15 year mortgages on a 75% monthly payment plan. The local dealer proposes to the prospect, an associate architect is an essential and on every building erected the architect's supervision is required. The corporation members are in independent competition for the building material and the corporation finances and sees that material is furnished. The corporation secures an independent appraisal from the local mortgage banker and maintains a paid architectural advisory board. The mortgage document, copy of which the speaker showed, contains—besides this promise to pay—a photograph of the finished building, photostats of principal elevations and plans, a detailed cost statement of the building, an architect's approval sheet showing the number of visits he has made to the building during construction and progress at each visit, together with one or more other interesting and valuable documents. The speaker showed that all this was of value in case of sale and also with the insurance company in case

of fire. The corporation maintains a life insurance policy on the life of the owner, expiring with the full payment of the corporation. Mr. McNeal paid his respects to the R. F. C. for valuable aid in perfecting the corporation plan. The R. F. C. had agreed to take these mortgages from local bankers. To Mr. N. Max Dunning, then of the R. F. C. and now Assistant Director of Housing NRA, he expressed appreciation and thanks for help in criticizing and perfecting the plans of this corporation.

John R. Fugard, President, Illinois Society of Architects, prefaced the reading of his paper, which was a report of the Committee on Construction and Real Estate Financing of the National Association for Better Housing, whose convention was held at the Union League Club, October 30 and November 1, with the statement that at the present time 50 Chicago architects and 800 Chicago draftsmen are on County relief rolls. The report begins with the statement that owing to the collapse of mortgage credit, the construction industry finds itself unable to function; that if the credit of the Federal Government is to be properly employed, the interest, the knowledge and the active help of the most responsible citizens in each community should be enlisted in order to secure the best results. The committee believes that at least one billion dollars of PWA and R. F. C. money available for creating employment should be set aside for housing and that well conceived housing projects will be completely self-liquidating and will not cost the public one cent. The committee proposes local housing corporations, operating with Federal funds to be used in the following manner: (a) Building of low cost single family dwellings. (b) Remodeling, repairing, or rehabilitation of dwellings. (c) Building of low cost rental projects. (d) Demolition of obsolete and unusable structures. (e) Garden homes.

The committee says it is apparent that our system of mortgage credit has many weaknesses. In the best of times it fails to meet requirements and in emergencies completely collapses, so that mortgage money disappears. There has been no second line of defense. A system of long term credit, designed to the end that the owner of real estate, once he possesses a substantial initial equity, can amortize over a long period of years a mortgage indebtedness through some systematic plan under which, without due burden or danger, he can come into ultimate complete ownership, is required. Such an instrumentality can only be created under Federal auspices. They suggest that machinery immediately be set in motion for the creation of a Federal agency for supplying long term credit along lines somewhat similar to the Federal Reserve Bank for short term credit, and for a long term credit system, which is required, the creation of a Federal Mortgage Discount System for urban mortgages, is necessary.

Systems of similar character, but not so well designed to meet the genius of the American people, have been in force in most of the forward looking nations of the world for generations, but our country, because of its rapid growth and plentiful supply of new wealth, has not heretofore seen the need for the establishment of long term credit. The committee submits two proposals, one looking to the financing of emergency needs and the other looking to basic reorganization of our whole mortgage structure.

Anticipating that the assembly would wish further reference authorities on housing, the efficient librarians of the Burnham Library had commendably made a list of available books in their library on housing and provided mimeographed copies of this list for every attendant at this joint meeting.